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ABSTRACT

The purpose of this study of the Charlotte-Mecklenburg Chapter 1 Preschool Program was to document the program's effects and to make a start at determining whether the program prevents later school problems. It was hypothesized: (1) that former preschool program members would have significantly better language development than eligible students who did not participate in the program; and (2) that participating students would do better than children who had no preschool experience in the areas of grade retention, special education referrals, behavior ratings, and parent participation. Data were acquired from three sources: (1) individual testing of the students; (2) teacher ratings of the students; and (3) school records. Information about students' classroom behavior was obtained by means of the Devereux Elementary School Behavior Rating Scale II. Teachers were asked to provide information regarding parent participation in the child's school life. The subjects were 1,232 kindergarten and first grade students from 56 schools in Charlotte-Mecklenburg, a large metropolitan area in North Carolina. The subjects had, as 4-year-old children, been found eligible for the local Chapter 1 preschool program. Two samples were selected: 160 kindergarten and first grade students from the preschool group; and 161 kindergarten and first grade students from a comparison group who had either attended a different program or had no program experience. The study showed statistically significant results favorable to the Chapter 1 program on only a few variables. (AC)

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RELATIONSHIPS BETWEEN A PREKINDERGARTEN INTERVENTION PROGRAM AND SCHOOL SUCCESS

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AERA 1992 Annual Meeting

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INTRODUCTION

Research in recent years in the field of early childhood has been directed in large part toward the effects of early intervention programs on the lives of the children who participated in them. Results of such studies suggest that some primary positive outcomes are certain prosocial behaviors, often noticeable in the elementary grades and continuing on into adult life.

Research also suggests that all children can benefit from quality prekindergarten experience, but that such experience may be of particular value, both in the short-and long-term, for children who are "at-risk" for academic and social failure Hunt, 1961; Bloom, 1964; Larsen & Draper, 1984; Hymes, 1986; Schweinhart and Weikart, 1986). Evidence indicates that participants in intervention prekindergarten programs for high risk children have fewer placements in special education programs, less need for retention in grade, as well as less juvenile delinquency, teenage pregnancy, unemployment, and need for welfare assistance than similar children who had no preschool experience (Berrueta-Clement, Schweinhart, Barnett, Epstein, Weikart, 1984; Godring, & Presbry, 1986; Helmich, 1985; Lazar, & Darlington, 1982; Sevigny, 1987).

In addition, a well-documented cost-benefit analysis indicates that preschool programs can pay for themselves (Barnett, 1985). This evidence, combined with concern for education reform and the growing need for quality child care,

has resulted in commitment from many states to fund early childhood programs for at-risk children (Gnezda & Robinson, 1986; Marx & Seligson, 1988; & National Governor's Association, 1988). In 1989, thirty-one states had committed to fund state prekindergarten programs, supplement Head Start programs, or provide parent education programs (Mitchell, 1989).

This rapid growth in state early childhood programs has resulted in the need for their evaluation for purposes of planning and accountability to the taxpayer. Until recently, evaluations of such programs, most of which were federally funded, relied heavily on standardized tests and I.Q. scores. Such early studies found that for the most part, academic advantages these students had attained through preschool participation, tended to fade by the third grade. Serious questions were raised about the value of intervention programs based on the lack of return to the taxpayer of funds invested in such programs as Head Start, Follow-Through, and Title I (Beckler, 1970; Coleman, et al., 1966; Jensen, 1969; Office of Economic Opportunity, 1969; Office of Education, 1970; McLaughlin, 1974; & Mullin & Summers, 1983).

In the last decade, since publication of longitudinal studies focusing on long-range positive effects of preschool, criteria in addition to I.Q. measures and test scores have been used. This has resulted in a variety of attempts to evaluate preschool programs' effectiveness with such information as rates of retention in grade, need for special

education programs, absences, as well as tests.

In North Carolina, state funding for prekindergarten is not yet a reality. However, there are a number of non-private prekindergarten programs funded from other sources in the state. Twenty-five Chapter 1 prekindergarten programs of varying sizes are listed in North Carolina (North Carolina Department of Public Instruction 1990). Chapter 1 is a federally funded program that provides supplementary educational services to those children in school attendance areas with higher than average percentages of low-income families.

In light of research findings showing that positive school behavior is a realistic expectation resulting from a preschool intervention program (Berrueta-Clement, et al., 1984; Consortium on Developmental Continuity, 1977; Lazar & Darlington, 1982; Helmich, 1985;), use of a teacher rating scale of students' classroom behavior would seem to have potential for enhancing the body of information used in evaluating the effectiveness of a preschool program. Teachers are most able to provide information about school behavior. They have the advantage of being able to compare the child's behavior to others of a large sample of children the same age and observe the child at age appropriate tasks and skills (Sandoval, 1977). Current evidence suggests that they defferentiate sensitively between adjusted and maladjusted children and predict future adjustment including the identification of younsters at risk (Janes & Hesselbrock,

1978; Orvaschel, 1980; Sholomskas & Weissman, 1980; Spivack & Swift, 1973; 1977).

Successful early educational intervention programs, such as the Perry Preschool study (Berrueta-Clement, et al 1984) and those studies reported in Lazar and Darlington's report (1982), have a parent involvement segment. Research studies in the area of parental participation, support its importance in the students' school life. Subjects of early educational intervention programs show higher and more lasting gains if their parents are actively involved in their learning (Bronfenbrenner, 1974; Comer, 1980; Gordon, 1978). Herman and Yeh (1980) found a direct positive relationship between parent participation in school activities, and student achievement, also between parent involvement and parent satisfaction. Revicki (1981) and Becher (1984) in separate studies found that children who are high achievers have parents with high expectations for them. Subjects were compared on language development, classroom behavior, rates of retention in grade, rates of enrollment in special education programs, and parental participation in the school life of these children.

Chapter 1 preschool programs, like many programs that have been the subject of research (Berrueta-Clement, et al 1984; Lazar & Darlington, 1982), have a parent involvement segment. Based on the belief that parental education and support is essential for maximum benefit from early intervention programs, Chapter 1 stresses communication with

parents through home visits, and parents centers, which offer workshops, resource persons and materials which parents may use at home with their children.

The Charlotte-Mecklenburg Chapter 1 Preschool program was designed to provide developmentally appropriate learning experiences for four-year-old children who are educationally and culturally deprived. This four hour per day preschool program, developed in 1986, uses several components of the High Scope cognitively oriented preschool. Age-appropriate activity is emphasized, informal learning is encouraged and high levels of teacher direction and teaching of formal academic subjects are discouraged. Play is highly valued as are opportunities for choices, participation and discussion, and are provided every day. The program goal as stated in the Chapter 1 ESSIA Preschool Program Handbook Supplement 1989-1990 is "to provide learning opportunities for children who, as kindergarteners, will attend schools served by Chapter 1 and, through screening, have demonstrated an educational need."

Purpose of the Study

This Preschool program complies with most suggestions for high quality child care and exemplary early childhood programming. Adult-child ratio is less than one to eight. The staff have extensive, ongoing inservice education. Parents are encouraged to be involved with the program in a variety of ways. The needs of individual children are

diagnosed and instructional planning addresses those needs. In surveys parents, staff and school administrators have praised the program. The Charlotte-Mecklenburg Preschool program has been seen as an excellent example of developmental preschool for four-year-olds. This study was proposed in order to document the effects of this program, and to begin to determine whether the program does indeed prevent later school problems.

Hypotheses

Based on program goals and results form previous research and evaluation findings, the following hypotheses were developed:

1. Former Preschool students 1 will have significantly better language development as measured by higher mean scores on the Woodcock-Johnson Reading and Knowledge cluster subtests (adjusted for initial achievement as measure by the Preschool Screening Test score) than students in a comparison group of students eligible for Preschool but who did not participate in the program.
2. Students who participated in the Chapter 1 prekindergarten program will be rated more favorably on the DESB II than the students who have had no prekindergarten experience.
3. Students who participated in the Chapter 1 prekindergarten program will have a lower rate of

retention in grade than the students who have had no prekindergarten experience.

4. Age and gender of the students will impact significantly upon DESB II scores and grade retention rates beyond any prekindergarten effects.
5. Students who participated in the Chapter 1 prekindergarten program will have a lower rate of referral to special education classes than the students who have had no prekindergarten experience.
6. Students who participated in the Chapter 1 prekindergarten program will have a greater degree of parent participation in school activities than those students who have had no prekindergarten experience.

METHODS

This study was designed to be the initial phase of a longitudinal study of the school success of these children. It focused on examining some short-and mid-term effects of this Chapter 1 prekindergarten program on two waves of children at one, and two years following participation in this program.

Data were acquired from three sources: 1) individual testing of the subjects, 2) teacher ratings of the subjects and 3) examination of school records.

Independent variables included year, program, gender, and age group. Dependent variables included (a) Woodcock

Johnson Revised Scale scores, (b) five factors determined through a factor analysis of the Devereux Elementary School Behavior Rating Scale II (DESB II), (c) rates of retention in grade, (d) rates of enrollment in special education classes, (e) and ratings of parent participation.

Subjects

The subjects selected for this study were kindergarten and first grade students from a large metropolitan school system in North Carolina. As four-year-olds, these students applied to, and were found to be eligible for the local Chapter 1 preschool program. To be eligible for a this preschool program, they must have lived in an area served by a Chapter 1 school, have reached the age of four years by October 16 of the year for which the child made application to the program, and must have demonstrated a need for educational experiences as shown on a locally developed screening test.

From the 1232 students meeting the criteria, and who were currently enrolled in a school in the system, two groups were initially identified. The preschool group was made up of 898 students who participated in the program for at least six months; the comparison group included 334 students who did not attend the program or who dropped out after a month or less. Requests for permission to include each of these children in this study were sent to the parents through the child's current school. At the end of the three weeks

allowed for receiving and tabulating permissions, 763 parents of former Chapter 1 preschool students and 196 parents of comparison children had given their permission for inclusion of their children in this study. Random samples were taken from this group as follows: 160 from the preschool group (80 from kindergarten and 80 from first grade); and 161 from the comparison group (82 from kindergarten and 79 from first grade) for a total sample of 321.

After the selection of the sample, additional information was received indicating a distinct difference among students in the comparison group. In response to a questionnaire, parents indicated whether or not their child had attended some other program at age four, such as day care. Therefore the selected comparison group was divided into two groups, 1) those who attended another program and 2) those with no program experience. The day care group included 89 children who had attended some program other than the Chapter 1 preschool program (42 in kindergarten and 47 in first grade). The no-program group was slightly smaller with 72 children (40 in kindergarten and 32 in first grade). Tables 3.1 and 3.2 give a breakdown of the gender and ethnic make up of the sample by program group. Lunch status, reported in Table 3.3, was used as an indicator of family socioeconomic status, a variable often correlated with student achievement.

Table 3.1

Gender of Selected Sample

Program	n	females	(%)	males	(%)
Chapter 1	160	82	51%	78	49%
Day Care	89	55	62%	34	38%
No Program	72	40	56%	32	44%

Table 3.2

Ethnicity of Selected Sample

Program	n	Black (%)	White (%)	Other (%)
Chapter 1	160	125 (78%)	32 (20%)	3 (2%)
Day Care	89	79 (89%)	10 (11%)	0 No
Program	72	50 (69%)	20 (28%)	2 (3%)

Table 3.3

Lunch Status of Selected Sample

Program	n	Free (%)	Reduced (%)	Paid (%)
Chapter 1	160	67 (42%)	17 (11%)	76 (47%)
Day Care	89	47 (53%)	7 (8%)	35 (39%)
No Program	72	36 (50%)	12 (17%)	24 (33%)

Procedures

In April 1990, permission requests were sent to parents of all former Chapter 1 preschool students and eligible applicants for the school years 1987-88 (currently in first grade) and 1988-89 (currently in kindergarten), who were still attending school in the system. At the end of three weeks, 959 requests had been granted for participation in this study. The first week in May two groups were randomly selected; 160 former preschoolers, and 161 eligible applicants who did not attend the Chapter 1 program. Parent questionnaires subsequently revealed that many of this latter group did attend some preschool program or day care facility. Therefore the comparison group was divided into two groups; those with some preschool or day care and those with no program participation.

Students selected for this study were in 56 schools in the school system. Information was available through the pupil accounting system regarding the current assignment of each student (school, grade and teacher number). As the teachers' names were not readily available, rating materials were sent to each of the 56 schools, directed to the teachers of the students involved. The packet of materials included a letter from the director of the Chapter 1 program, the Director of Research for the school system, and this investigator requesting the teachers' participation in the study. Directions for completing the rating scales were also included. In an effort to avoid possible bias regarding the

program, there was no indication which children had attended the Chapter 1 program and which had not. One hundred percent of the rating scales were returned to the researcher within three weeks. Tables 3.1 and 3.2 show how the subjects were distributed among teachers and schools. The participation of a large number of teachers (211) and schools (56), the low number of students each teacher assessed (mean number of students per teacher was 1.53) and the small number of assessed students in each school (mean number of students per school was 5.73), for all practical purposes, eliminates teacher or school effect in these results.

Table 3.4

Distribution of Selected Students Among Teachers

Numbers of Students Assessed by Teachers	Numbers of Teachers	Student Sub Totals	Student Cum Totals	Teacher Cum Totals	Mean Number of Students Assessed by Each Teacher
5	1	5	5	1	
4	6	24	29	7	
3	18	54	83	25	
2	52	104	187	77	
1	134	134	321	211	1.53

Table 3.5

Distribution of Selected Students Among Schools

Numbers of Students Assessed Each in Each School	Numbers of Schools	Sub Totals of Students Assessed	Cum Totals of Students Assessed	Cum Totals of Schools	Mean Number of Students in Assessed School
16	1	16	16	1	
14	2	28	44	3	
13	3	39	83	6	
11	2	22	105	8	
10	2	20	125	10	
9	3	27	152	13	
8	2	16	168	15	
7	5	35	203	20	
6	9	54	257	29	
5	3	15	272	32	
4	5	20	292	37	
3	3	9	301	40	
2	4	8	309	44	
1	12	12	321	56	5.73

Measures

Information about the subjects' classroom behavior, and parent involvement in the school were obtained from the kindergarten and first grade teachers with the use of two instruments.

Classroom behavior was assessed through the use of the Devereux Elementary School Behavior Rating Scale II (Swift, 1982a). This teacher rating instrument has 52 items measuring 50 behaviors divided into 10 behavior factors and 4 behavior clusters. Two estimates of overall achievement are included (Achieving compared to the average child; Achieving considering his own ability). The factors consist of between three and five items, and clusters are made up of two to four items. Items within a factor or cluster relate to a common dimension of classroom behavior that is relevant to achievement or adjustment in school (Swift, 1982b). Internal consistency (coefficient alpha) reliability coefficients of the subscales have been found to range from .80 to .93. Intercorrelations among Devereux subscales are moderate to high (Reynolds & Bernstein, 1982). Separate norms are given for each grade level.

The early version of the Devereux Elementary School Behavior Rating Scale (DESB) (Spivack & Swift, 1966, 1967) has been used in a number of studies as a measure of classroom behavior (Elardo & Caldwell, 1979; Jorgenson, 1977; Spivack, Marcus, & Weift, 1986). Psychometric studies of this scale have questioned whether DESB, an earlier version,

which consisted of 11 factors, actually measured 11 discrete factors (Reynolds & Bernstein, 1982; Schaefer, Baker, & Zarvel, 1975; Von Isser, Quay & Love, 1980; Willis, Smithy, & Holliday, 1979;). These researchers all found fewer factors ranging from 2 to 7.

Comparable research on DESB II has not been carried out, though the current scale differs from the original both in number and structure of items and factors. DESB II includes approximately thirty new or reworded items and now has 16 factors instead of the previous 11. For use in this study a factor analysis was carried out which reduced the DESB II 16 factor structure to five factors.

The second instrument is a brief questionnaire designed by the investigator (Appendix B). Teachers were asked to provide information regarding parent participation in the child's school life by indicating the frequency (Always/Often, Sometimes, Once, Never) of participation in seven activities, and by rating apparent interest and overall participation.

Information regarding retention in grade and placement in special education classes were obtained through the school system's central office files.

Analysis

Analysis of variance (ANOVA) procedures were used to determine statistical significances of the differences between the mean scores of the groups on the DESB II and the Parent Participation Rating Scale. When appropriate, post hoc analyses using Tukey's HSD test were calculated to identify which group(s) differed from the others. Chi square procedures were used to determine significance of rates of retention and rate of enrollment in special education classes. Throughout the study, alpha was set at .05.

SUMMARY OF RESULTS

Analysis of the Woodcock Johnson-Revised scores showed the eligibility score was a highly significant covariate, indicating that developmental level before the Preschool year was significantly correlated with Woodcock Johnson achievement.

Significant difference between the Preschool and the Comparison groups' cluster scores in the kindergarten group occurred in favor of the Preschool group ($p<.01$) on the Broad Knowledge cluster. No significant differences among groups were found when the Comparison group was divided into those who attended day care and those who participated in no program.

The 52 items on the DESB II define 10 behavior factors, 4 behavior clusters, and 2 estimates of overall achievement,

which total 16 separate scales, each measuring what Swift (1982) refers to as "a common dimension of classroom behavior that is relevant to academic achievement or adjustment" (p.10). This study is concerned with comparing three groups on classroom behaviors, not questioning the appropriateness of the DESB II scales. However, for this study working with 16 dependent variables would be cumbersome and increase the chance of type 1 error. Therefore, a factor analysis was performed on all 52 DESB II items for purposes of this study, in order to reduce the common variance to a smaller number of conceptually meaningful variables.

Differences among the program groups (Preschool, Day Care and No Program) were detected in the following areas:

(1) Classroom behaviors, as measured by the DESB II five factors (Lack of Focus on Tasks, Negative/Aggressive Behavior, Positive Involvement, Failure Anxiety, and Irrelevant Thinking), showed significant differences in program group scores on only the last of these. The Preschool group had significantly lower (more favorable) ratings on Irrelevant Thinking than the either the Day Care group or the No Program group.

(2) Retention rates for the Preschool group were higher than those of the other two program groups.

(3) The Preschool group had a slightly lower rate of enrollment in special education programs than the No Program group. The Day Care group had the lowest rate.

(4) Ratings of the students' parents' participation in school activities showed significant differences. The Preschool group's parents were rated significantly higher than the other groups on specific areas of participation, interest, and overall participation in school activities.

Differences between age groups were found in the following areas:

(1) On the DESB II older students were rated significantly lower on "Lack of Focus on Tasks," and on "Irrelevant Thinking" than were younger children. Younger children were rated as exhibiting less "Negative/Aggressive Behavior" than the older children.

(2) Rates of retention for younger children were twice as high as those of older children.

Gender differences were found as follows:

(1) Females were rated more favorably on DESB II factors "Lack of Focus on Tasks," and "Negative/Aggressive Behavior" than were males.

(2) Rates of retention of males were nearly twice as high as for females.

Implications

Implications of this study are limited by the fact that only kindergarten and first grade students were available for inclusion in the findings. This is a baseline study intended to initiate a longitudinal study of the progress of these

subjects as they progress through public school. Some important indications are present in the results of this study even at this early stage, however.

Classroom Behavior

The fact that teachers rated the Chapter 1 preschool participants at the kindergarten and first grade levels, more favorably than both those who participated in no program or day care, on "out of touch behaviors" in the classroom is important. This significantly favorable rating of the Chapter 1 students indicates that personal independence, as well as communication and listening skills, are being fostered prior to school entrance in kindergarten, the effects of which are observable by the teacher for at least two years following the preschool year. These are important skills, perhaps the most important, for future school success.

Teachers and administrators of the Chapter 1 program should be encouraged to continue the emphasis on these areas which are important to academic achievement and adjustment. Similar implications are present for planners of prekindergarten programs at the state level. Plans for prekindergarten programs should be aware of the importance of a curriculum which encourages communication between the children and between children and teachers. Independent thinking comes from a minimum of teacher directed activities, ample opportunity for role play, and discussion of ideas.

Group discussions encourage listening skills and sharing of ideas. These should all be elements of a good early childhood education program.

Retention Rates

At this stage of the longitudinal study there are few implications regarding retention rates. The fact that the preschool group and the no program group both exceeded the school system average for retentions in kindergarten and first grade, indicate that this is a population which is at risk academically. However, these numbers are so small that caution should be taken in their interpretation. The relatively good showing of the day care group may well be influenced by the fact that it was 62% female.

Age and Gender Influence

Age and gender were definitely found to be influences in DESB II scores and in retention rates. It appears that for this population of students, teachers' ratings of positive classroom behavior at the kindergarten and first grade level is reflected in retention rates which favor females and older students. This implies that teacher expectations may be out of step with children's development in cases of very young children and males. Curriculum which plans for individual differences at all levels would come closer to meeting the needs of all children.

Special Education Programs

Implications regarding the lack of a statistical difference in the rate of enrollment in special education programs among the Chapter 1 prekindergarten participants and the other two groups is inconclusive at this stage of the longitudinal study. If, in fact, the rate of enrollment of Chapter 1 participants at this stage is a result of early detection of need in this area, future years may well show a reversal of these rates in favor of the Chapter 1 students. This is an area where differences favorable to preschool experience have been found in later elementary and secondary school as over the years these children were found to require less time in these programs than those who did not participate in preschool.

Parent Participation

The clear differences between program groups in the area of parent participation at the kindergarten and first grade levels seems to show the effectiveness of the Chapter 1 emphasis on parent involvement. This is an area which has been the subject of little empirical study, with good reason. The difficulty involved in gathering information regarding participation is just the first problem. How to measure the impact of parent participation is another. This study found that for this population, parents of past Chapter 1 preschool students were rated by their children's teachers as being more responsive, appearing to be more interested in their

children's schools, and having a generally greater level of participation in school related activities. If parent participation at this level continues in future years of this longitudinal study, and the Chapter 1 students are found to compare favorably in other aspects of the longitudinal study, the study will furnish additional evidence that parent involvement in the child's school life is associated with the child's success in school. However, it is unlikely Chapter 1 parents will continue to show significantly more participation unless there is an organized effort to encourage them in this direction. The possible benefits to the student, the school and society should be sufficient incentives for state legislatures, as well as teachers and administrators to make such an effort in every school.

Suggestions for Further Research

This study will be replicated several times in a longitudinal study of the educational progress of these students. Results will give indications of the success of the local Chapter 1 program. Areas of greatest interest will be behavior ratings, rates of retention and enrollment in special education programs, and levels of parent participation.

Other areas of interest include devising a workable method of extending parent participation training for parents of Chapter 1 prekindergarten participants into elementary school, or beyond.

Also of interest is the exploration of alternative methods of measuring both classroom behavior and parental participation in the school life of child. Possibilities include the use of instruments that measure the developmental progress of very young children in a classroom setting such as the incorporation of of a qualitative segment of research.

Summary

This study provides baseline data for a longitudinal study of the educational progress of selected Chapter 1 prekindergarten participants by comparing them to two other groups of students who were eligible for the program but who did not attend.

This Chapter 1 program has been the subject of study at some level since its beginnings in 1986, but this study differs from the previous ones in three aspects. 1) This study has separated the comparison group into those students who had no program and those who did not attend the Chapter 1 program but did attend some other program, 2) it has included classroom behavior as a possible indicator of school success, and 3) used teacher ratings of this behavior and of parent participation as measures of effectiveness of the Chapter 1 prekindergarten program.

This study will be continued for several years in an effort to see whether preschool effects of this Chapter 1 program are evident as these students progress through school.

Though this study showed statistically significant results favorable to the Chapter 1 program on only a few variables, a number of well-documented longitudinal studies have shown that participation in quality preschool programs have beneficial long-term benefits. It is anticipated that future studies of this sample will show more differences in favor of the preschool group.

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Appendix A

Devereux Elementary School Behavior Rating Scale II

Test Items

YOU ARE GOING TO RATE THE OVERT BEHAVIOR OF A STUDENT. FOR ITEMS 1 - 30 USE THE RATING SCALE BELOW. MARK YOUR RATING (NUMBER) FOR EACH ITEM ON THE MARKING SHEET NEXT TO THE ITEM NUMBER.

Very frequently	Often	Occasionally	Rarely	Never
5	4	3	2	1

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, HOW OFTEN DOES THE CHILD.....

Rating	Item
☐	1. Hand in work without checking it first?
☐	2. Give an answer that has nothing to do with a question being asked?
☐	3. Show worry or get anxious about knowing the "right" answers?
☐	4. Say that the teacher doesn't help him enough (i.e., won't show him how to do things, or answer his questions)?
☐	5. Forget the directions that are given?
☐	6. Rush through work just to get the job done?
☐	7. Get openly disturbed about scores on a test (e.g., may cry or get emotionally upset)?
☐	8. Make you doubt whether he is paying attention to what you are doing or saying (i.e., looks elsewhere, has blank stare or faraway look)?
☐	9. Jump from one thought to another when telling something?
☐	10. Complete assignments on time?
☐	11. Avoid involvement or communication with others?
☐	12. Initiate classroom discussion?
☐	13. Complain teacher never calls on him (e.g., calls others first)?
☐	14. Poke, torment, or tease classmates?
☐	15. Quickly lose attention when teacher explains something to him (e.g., become fidgety, look away)?
☐	16. Introduce into class discussion personal experiences or things he has heard which relate to what is going on in class?
☐	17. Start working on something before getting the directions straight?
☐	18. Say he doesn't like the work assigned?
☐	19. Make irrelevant remarks during a classroom discussion?
☐	20. Seek out the teacher before or after class to talk about school or personal matters?
☐	21. Just sit and not participate (e.g., not raise hand or initiate any activity)?
☐	22. Change topic to a personal interest unrelated to the discussion?
☐	23. Stay with task until completed?
☐	24. Bring things to class that relate to current topic (e.g., exhibits, collections, articles)?
☐	25. Get upset or angry when having difficulty understandings something?
☐	26. Destroy others' property?
☐	27. Verbally belittle others (e.g., put others down, use abusive language)?
☐	28. Break classroom rules (e.g., throw things, mark up desk or books)?
☐	29. Listen to ideas of others and comment on them?
☐	30. Tell stories or describe things in an interesting and colorful fashion (e.g., has an active imagination)?

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FOR ITEMS 31 - 52 USE THE SEVEN POINT RATING SCALE BELOW:

Extremely	Distinctly	Quite a bit	Moderately	A little	Very slightly	Not at all
7	6	5	4	3	2	1

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE DOES THE CHILD. . . . . .

Rating	Item
☐	31. Respond positively to praise?
☐	32. Work well with peers?
☐	33 Persist when something is difficult or demands more than usual effort?
☐	34. Get easily confused in discussions or when answering a question?
☐	35. Like to be close to the teacher (e.g., hug or touch the teacher, sit or stand next to the teacher)?

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE IS THE CHILD. . . . . .

☐	36. Well organized about his work?
☐	37. Difficult to reach (e.g., preoccupied with own thoughts, may have to be called by name to bring him out of himself)?
☐	38. Cooperative with other children by sharing equipment or materials?
☐	39. Able to work independently with little or no supervision?
☐	40. Socially withdrawn?
☐	41. Prone to blame the teacher, the test, or external circumstances when things don't do well?
☐	42. Unable to correct errors in his own work?
☐	43. Unable to follow directions given in class (i.e., need precise directions before he can proceed successfully)?
☐	44. Unwilling to go back over his work?
☐	45. Able to get to work when work is assigned?
☐	46. Oblivious to what is going on in class (i.e., not "with it", seems to be in own "private" closed world)?
☐	47. Unable to attend to a task when other activities are going on?
☐	48. Reliant upon the teacher for directions and to be told how to do things or proceed in class?
☐	49. Responsible or friendly in his relationship with the teacher in class?
☐	50. Sensitive to criticism or correction about his work (e.g., gets angry, sulks, seems "deflated")?
☐	51. Achieving academically (compared to the average child his age and grade)?
☐	52. Achieving academically (considering his own ability)?

Appendix B

Parent Participation Rating Form

PARENT PARTICIPATION RATING FORM

Please fill in the appropriate information for parents of

_____.

Please describe the level of participation of this child's parents in school activities by checking the appropriate descriptions below. The parent/s of this child

Attended conferences at designated times
Always____ Sometimes_____ Once_____ Never____

Responded to school communications promptly
Always_____ Sometimes_____ Once_____ Never____

Initiated communications with you (phone calls, notes)
Often_____ Sometimes_____ Once_____ Never_____

Attended school open house, PTA meetings, class plays
Always____ Sometimes_____ Once_____ Never_____

Helped with class activities, field trips, parties, etc.
Often_____ Sometimes_____ Once_____ Never_____

Came to school to have lunch with his/her child
Often_____ Sometimes_____ Once_____ Never_____

Visited the classroom of his/her child
Often_____ Sometimes_____ Once_____ Never_____

How would you rate the interest of this child's parent/s in the school?
High_____ Average_____ Low_____ None_____

How would you rate the overall participation of this child's parent/s in school related activities?
High_____ Average_____ Low_____ None_____

Appendix C

Factor Loadings and Communalities for Principal Factors Extraction and Oblimin Rotation on DESB II Items: Pattern Matrix

FACTOR LOADINGS* AND COMMUNALITIES (h) FOR PRINCIPAL FACTORS EXTRACTION AND OBLIMIN ROTATION ON DESB II ITEMS: PATTERN MATRIX **

Item	F1	F2	F3	F4	F5	h2
D36 organized	-.916					.76
D39 independent	-.818					.73
D51 compared to aver	-.793					.69
D10 completes work	-.783					.57
D23 completes task	-.779					.63
D45 begin task on own	-.766					.56
D52 compared to own	-.751					.55
D5 forget direction	.635					.61
D33 persist if diff.	-.595					.44
D47 unable to attend	.590					.60
D1 not check work	.564					.41
D48 rely on teacher	.547					.63
D8 inattention	.538					.65
D15 lose attention	.514					.68
D17 start before dir.	.514					.42
D43 not follow dir.	.510				.415	.69
D6 rush work	.490					.36
D44 unwilling to check	.429					.50
D14 tease others		.864				.71
D27 belittle		.850				.66
D26 destroy		.772				.61
D28 break rules		.720				.59
D38 cooperative		-.668				.68
D41 blames others		.619				.57
D32 work with others		- .565				.75
D19 irrel. remarks		.469			.453	.70
D16 share experiences			.625			.51
D30 imagination			.547			.55
D12 initiate			.532			.49
D29 listen to others			.518			.51
D20 seek out teacher			.490			.26
D40 withdrawn			- .448		.444	.45
D49 friendly			.444			.48
D21 not participate			-.442			.56
D31 respond to praise			.410			.34
D7 test grades				.743		.54
D25 upset at difficult				.641		.57
D50 sensitive re work				.583		.46
D4 blame teacher				.560		.51
D3 worry				.522		.32

** Loadings under .40 are not given.

* Factor labels:
F1 Lack of Focus on Tasks
F2 Nagative/Aggressive
F3 Positive Involvement
F4 Failure Anxiety
F5 Irrelevant Thinking

Item	F1*	F2	F3	F4	F5	h2
D34 easily confused					.596	.71
D2 irrel. answers	.464				.485	.68
D46 oblivious					.461	.57
D11 avoid others			.431		.460	.44
D9 thoughts jump	.413				.423	.56
D13 no call		.410			.418	.46
D42 unable to correct					.403	.44
D18 not like work						.46
D22 unrelated talk						.43
D24 bring in items						.38
D35 close to teacher						.18
D37 hard to reach						.55

** Loadings under .40 are not given.

* Factor labels: F1 Lack of Focus on Tasks
F2 Negative/Aggressive F3 Positive Involvement
F4 Failure Anxiety F5 Irrelevant Thinking

Appendix D

Factor Loadings for Principal Factors Extraction and Oblimin Rotation on DESB II Items: Structure Matrix

FACTOR LOADINGS* FOR PRINCIPAL FACTORS EXTRACTION AND OBLIMIN ROTATION ON DESB II ITEMS: STRUCTURE MATRIX

Item	F1**	F2	F3	F4	F5
D36 organized	-.870				
D39 independent	-.849	-.420			
D51 compared to aver	-.801				-.438
D15 lose attention	.768	.512			.508
D8 inattention	.759	.453			.488
D47 unable to attend	.749	.443			.440
D5 forget direction	.748				.525
D10 completes work	-.746				
D45 begin task on own	-.743				
D43 not follow dir.	.742				.647
D52 compared to own	-.734				
D48 rely on teacher	.694				.634
D2 irrel. answers	.688				.659
D33 persist if diff.	-.646				
D44 unwilling to check	.643	.517			
D1 not check work	.623				
D37 hard to reach	.620				
D9 thoughts jump	.599				.578
D17 start before dir.	.595	.470			
D19 irrel. remarks	.588	.581			.533
D6 rush work	.540	.459			
D49 friendly	-.500	.467			
D24 bring in items	-.504		.405		
D22 unrelated talk	.406				
D23 completes task	-.406				
D14 tease others		.838			
D27 belittle		.805			
D38 cooperative	.513	-.789			
D26 destroy		.774			
D32 work with others	-.651	-.769			
D28 break rules	.454	.748			
D41 blames others		.687		.484	
D18 not like work		.569		.479	
D13 no call		.512		.509	
D16 share experiences			.679		
D30 imagination	-.474		.648		
D12 initiate	-.420		.621		
D29 listen to others	-.503		.618		
D21 not participate	.527		.559		.525
D20 seek out teacher			.501		
D40 withdrawn			.485		.501
D31 respond to praise			.463		

** Loadings under .40 are not given.

* Factor labels:
F1 Lack of Focus on Tasks
F2 Negative/Aggressive
F3 Positive Involvement
F4 Failure Anxiety
F5 Irrelevant Thinking

Item	F1**	F2	F3	F4	F5
D7 test grades				.723	
D25 upset at difficult		.403		.712	
D4 blame teacher		.470		.645	
D50 sensitive re work				.630	
D3 worry				.474	
D34 easily confused	.640				.767
D11 avoid others			.430		.463
D46 oblivious	.589				.629
D42 unable to correct	.550				.557
D35 close to teacher					

** Loadings under .40 are not given.

* Factor labels:
F1 Lack of Focus on Tasks
F2 Negative/Aggressive
F3 Positive Involvement
F4 Failure Anxiety
F5 Irrelevant Thinking